

There now follows a description of a hypothalamic drug microinfusion assembly according to another embodiment of the invention, as well as methods of using the same.

Figure 29A shows a perspective view of a hypothalamic drug infusion assembly 1001, according to another embodiment of the invention. Drug infusion assembly 1001 includes a macrocatheter 1003 which may house at least one microinfusion catheter 1005 for placement in the hypothalamus. Each microinfusion catheter 1005 may be finely calibrated to very fine calibrated diameter.

Each of the at least one microinfusion catheters 1005 is functionally coupled to a drug delivery manifold 1009. A drug supply line 1011 is functionally coupled to drug delivery manifold 1009, and a drug reservoir/pump 1013 for retaining and pumping a drug is functionally coupled to drug supply line 1011. Each of the at least one microinfusion catheters 1005 may have a plurality of drug delivery ports 1007 (Figure 30).

While in use, drug reservoir/pump 1013 is located subcutaneously and adjacent to the cranium. Drug reservoir/pump 1013 pumps a drug at a variable rate, and the variable rate of pumping a drug may be controlled percutaneously by a radio control unit (not shown), the latter well known in the art. Drug reservoir/pump 1013 may include a valve 1015, such as a recharge valve for recharging reservoir/pump 1013 with a quantity of a drug. The term “drug” as used herein means any chemical entity, whether natural, synthetic, or semisynthetic, or derivatives thereof, which exhibit a pharmacological effect related to appetite regulation, and may include various neurotransmitters and regulatory molecules.